AMORPHOUS ALLOY FOR BIOLOGICAL USE

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Abstract of **JP7188877**

PURPOSE:To provide amorphous alloy for biological use excellent in the corrosion resistance and the strength, and excellent in the amorphous formability by constituting the alloy from Zr, Ti, Hf, Pd, Pt, Al, Cu, Co and Ni at the prescribed ratio. CONSTITUTION:The amorphous alloy for biological use has the composition as indicated by the formula, Zr100-a-b-cMaAlbXcYd (wherein, M is one or more kinds of Ti and Hf or its mixture, X is one or more kinds of Pt and Pd or its mixture, Y is one or more kinds of Cu, Co and Ni or its mixture, a, b, c, d are the atm.% respectively to satisfy the inequalities of 5<=a<=55, 2<=b<=30, 2<=c<=45, 5<=d<=40, 20<=a+b+c+d<=80). The amorphous formability is deteriorated when either of the total content of Ti and Hf, that of Pt and Pd, or that of Ti, Hf, Al, Pd, Pt, Cu, Co and Ni is other the range. When the content of Al is below the lower limit, the corrosion resistance and the strength are low, and when the content of Al is above the upper limit, the amorphous formability is deteriorated. The amorphous formability is deteriorated when the total content of Cu, Co and Ni is below the lower limit, while the corrosion resistance is deteriorated when the total content is above the upper limit.